

ability of wireless licensees to deploy advanced telecommunications systems and services to meet the needs of the public and to continue to succeed in a fiercely competitive marketplace.¹⁰⁰

VIII. SPECTRUM ALLOCATION POLICIES ALSO POSE BARRIERS TO THE PROVISION OF ADVANCED TELECOMMUNICATIONS CAPABILITY AND SERVICES BY WIRELESS CARRIERS

In discussing possible barriers to infrastructure development and competition, the *NOI* queries the impact of spectrum availability on the deployment of wireless advanced telecommunications services, and posits that new opportunities may be created by: (1) auctioning more spectrum; (2) expanding technical and operational flexibility for auction winners; (3) expediting the reallocation of encumbered spectrum for new uses; (4) increasing spectrum sharing opportunities and overlay use of spectrum; and (5) adding incentives for CMRS and high-bandwidth licensees to deploy advanced telecommunications services.¹⁰¹ While spectrum

¹⁰⁰ PCIA has been active, on behalf of its members, in efforts to ensure that wireless carriers have access to sufficient numbers in a technically acceptable manner to permit them to meet the needs of new and existing subscribers. See, e.g., PCIA Comments on FCC Public Notice, "Common Carrier Bureau Seeks Comment On North American Numbering Council Letter Seeking Clarification of the Term 'Technology Neutral,'" DA 97-2234 (filed Oct. 29, 1997); PCIA Comments on FCC Public Notice "Common Carrier Bureau Seeks Comment on Petition for Declaratory Ruling and Request for Expedited Action filed by Providers of Commercial Mobile Radio Service in Pennsylvania," NSD File No. L-97-42 (filed Dec. 1, 1997); PCIA Comments on FCC Public Notice, "Connecticut Department of Public Utility Control Files Petition for Rulemaking, Public Comment Invited," DA 98-743 (filed May 7, 1998). PCIA firmly believes the Commission must resolve the number exhaust issues now confronting it so as to promote interoperability of wireless and wireline networks. Moreover, the Commission must continue to ensure that numbering policies and practices, whether deployed at the federal or state level, are applied on a non-discriminatory basis and do not disadvantage wireless carriers. If the Commission fails to pursue such objectives with respect to numbering resources, the ability of wireless carriers to meet consumer needs, to thrive in a competitive telecommunications marketplace, and to provide advanced telecommunications services will be severely and unnecessarily impeded.

¹⁰¹ *NOI*, ¶ 74.

availability is clearly a key necessity to the implementation of advanced telecommunications capability, PCIA does not believe that the commercial marketplace approach to spectrum management will promote infrastructure development or additional competition in the delivery of wireless services.

In raising this issue, the *NOI* recites the fundamental tenets of the marketplace approach to spectrum management.¹⁰² In PCIA's view, such an approach has been undermined by the temptation to focus on auction revenues as opposed to long-term spectrum planning. For example, the hurried auction of licenses for the 2.3 GHz Wireless Communications Service ("WCS") eschewed any analysis of the most appropriate use of that spectrum or even whether the spectrum was needed at that time. This failure is viewed as a primary cause of the poor performance of the WCS auction.¹⁰³

Proponents of the market-based approach argue that an abundance of available spectrum with unbridled flexible use provisions creates greater opportunity and certainty for entrepreneurs

¹⁰² Indeed, the discussion contained in the *NOI* echoes the conclusions contained in a recent spectrum policy paper prepared by some FCC staff members. See Gregory L. Rosston, Jeffrey S. Steinberg, *Using Market-Based Spectrum Policy to Promote the Public Interest*, Jan. 1997, ("*Rosston Paper*"). In that paper, the authors advocate the following:

Thus, in allocating spectrum, the Commission should strive to ensure that ample spectrum is available for services that the public demands. In addition, where spectrum is currently governed by rules that do not permit it to be used to its full value, the Commission should act quickly and effectively to expand service flexibility so that this spectrum can be used more efficiently, thereby increasing the value of spectrum to licensees and the public. Where possible, the Commission should also exhaustively license spectrum in bands that are now licensed on a site-by-site basis by issuing flexible, geographic-area overlay licenses and creating mechanisms for voluntary changes in spectrum use, including where appropriate procedures for new geographic-area licensees and incumbents to negotiate compensated relocation of incumbents.

Rosston Paper, at 5.

¹⁰³ See, e.g., Deborah Wayne, *WCS Auction Ends in Whimper*, RCR Radio Communications Report, Apr. 28, 1997.

and developers of new wireless products and technologies.¹⁰⁴ While this is a tempting position, PCIA is not convinced that theory matches reality. Although spectrum is now arguably abundant for commercial applications,¹⁰⁵ it is unlikely that the current supply will be able to keep pace with the expansion of the user market, even considering the additional efficiencies gained through new technologies. As a result, careful management and planning of the spectrum resource remains critical to the success of the wireless industry.

PCIA submits that the FCC's allocation policies should not seek to maximize spectrum flexibility if this flexibility does not result in an efficient spectrum allocation. A broad spectrum allocation that permits fixed, mobile, and broadcast operations, for example, may impede the offering of viable services that meet the needs of the public. The Commission must be mindful that excessively flexible spectrum use policies are likely to cause interference problems and to constrain technical operations, thereby limiting the nature and types of services that practically may be made available to the public. Similarly, an excessively broad spectrum allocation may limit the development of new services by creating uncertainty with respect to the continued viability of existing services as well as the feasibility of new ones.¹⁰⁶ This uncertainty inhibits investment in new infrastructures as well as research and development by manufacturers.

¹⁰⁴ See, e.g., *Rosston Paper*, at 5.

¹⁰⁵ It is imprecise to consider only the quantity of available spectrum without analyzing its quality. Spectrum is not interchangeable and new higher band frequencies are not always usable for many applications. Also, factors such as the amount of contiguous spectrum, costs of coverage, proximity to other bands, the ability to pair or associate with other frequency bands for certain services (sometimes necessary for two-way communications), sharing potential and propagation characteristics all influence whether or not a band of frequencies is suitable to provide users with a best fit solution.

¹⁰⁶ Congress has, of course, already expressed its concern in this regard. In adopting the Budget Act of 1997, Congress has instructed the Commission to carefully evaluate the impact of any flexible spectrum allocation on the public interest in order to ensure that the use "would not
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PCIA urges the Commission to develop and implement a coherent spectrum management policy that promotes efficient spectrum utilization. This policy must incorporate consideration of the needs of potential users in light of existing service offerings as well as technical capabilities and realities. A well-implemented, comprehensive spectrum management policy advances the public interest because it fosters investor and consumer certainty, promotes efficient use of valuable, limited spectrum resources, and ensures that spectrum remains available for future applications. PCIA remains committed to working with the FCC to achieve this objective.

With regard to a more specific allocation policy matter that is now acting as a barrier to the development of advanced communications capabilities, PCIA notes the upcoming availability of spectrum at 746-806 MHz for public safety wireless services and commercial wireless applications.¹⁰⁷ This spectrum offers an excellent opportunity for the development of advanced wireless capabilities and services, some in conjunction with existing services offered in the nearby 800 MHz land mobile allocations. The availability and usefulness of this spectrum will, however, remain uncertain due to the continued operation of incumbent broadcast television stations. Without a strong date-certain for the evacuation of incumbent television operations, particularly in the top 20 markets where they are most pervasive, the nation will lose a significant opportunity.

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deter investment in communications services or systems, or technology development. Budget Act of 1997 § 3005 (adding subsection (y) to Section 303 of the Communications Act). While noting that flexibility may be appropriate in certain instances, the conferees specifically found that "unlimited flexibility can introduce a level of entrepreneurial uncertainty that could ultimately retard the development of new services and technology." H.R. Conf. Rep. No. 105-217, at 581 (1997), reprinted in 1997 U.S.C.C.A.N. 176, 201.

¹⁰⁷ See generally Reallocation of Television Channels 60-69, the 746-806 MHz Band, 12 FCC Rcd 22953 (1998) (Report and Order), *recon. pending*.

Accordingly, while PCIA understands the statutory requirements of the DTV transition, it urges the FCC to act aggressively to ensure that the migration occurs by the existing 2006 target date.

IX. CONCLUSION

Section 706 provides the Commission with an unambiguous and firm directive to take whatever action, regulatory or otherwise, necessary to encourage the provision of advanced telecommunications capabilities to all Americans. In carrying out this mandate, the Commission must bear in mind that action tailored to the specific needs of each participating technology and service may well be necessary in order to promote the full potential of individual industry segments. Guided by this principle, PCIA urges the Commission to study the record generated in this proceeding so that it may learn how best to regulate – and de-regulate – each participating industry sector in order to facilitate Congress's objectives.

PCIA's comments provide the Commission with a road map outlining the steps required to encourage the provision of advanced telecommunications capability and services by the wireless industry. Adherence to the suggestions contained herein will help ensure the development of a

regulatory environment conducive to the fostering of anytime, anywhere advanced telecommunications capability by the nation's wireless providers.

Respectfully submitted,

**PERSONAL COMMUNICATIONS INDUSTRY
ASSOCIATION**

By: Mary McDermott/HK
Mary McDermott
Chief of Staff and Senior Vice President,
Government Relations
Mark J. Golden
Senior Vice President – Industry Affairs
Cynthia S. Thomas
Director, Regulatory Affairs
PERSONAL COMMUNICATIONS
INDUSTRY ASSOCIATION
500 Montgomery Street, Suite 700
Alexandria, VA 22314-1561

(703) 739-0300

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